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(54) **FLUID FLOW CONTROL DEVICES USABLE
IN ADJUSTABLE FOOT SUPPORT SYSTEMS**

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(58) **Field of Classification Search**
CPC **A43B 13/203**
See application file for complete search history.

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(57) **ABSTRACT**

Foot support systems include a fluid flow regulator and/or valve that: (a) can operate as a stop valve to stop transfer of fluid between a first fluid container and a second fluid container, (b) can open in a controlled manner to allow transfer of fluid from the second fluid container to the first fluid container, (c) can open to equalize pressure in the first and second fluid containers, and (d) can act as a check valve to enable flow of fluid from the first fluid container to the second fluid container when/if gas pressure in the first container exceeds that in the second container by a predetermined amount. Additional features relate to fluid flow control systems and methods, systems and methods for changing and controlling the crack pressure of a valve (e.g., a check valve), and/or systems and methods for matching foot support pressure features in two different sole structures.

20 Claims, 22 Drawing Sheets

